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ABSTRACT

Focusing on readability and interest factors of instructional materials for adult education, the study examined the possible relationships between performance and expressed interest in individual reading passages and in categories of passages. Passages on one of three levels of difficulty were administered to 180 adult education students from three New York State instructional centers. Students then answered multiple choice questions evaluating their comprehension of the materials and rated each selection according to interest level and category interest. Data analysis indicated negative correlations between passage interest and performance at the easy and difficult materials levels and a high positive correlation with moderate material. Positive correlations were indicated between performance and interest by categories for all subjects; categories ranked from most interesting to least interesting were: people, functions of the body, animal life, history, and environment. It appears that the readability leveling may not feature all the factors influencing comprehensibility of material for adults and that low reader groups may be more sensitive to interest by category of material than high reader groups. Further study is needed to examine motivation, material relevancy, and material interest in non-testing situations, as the test conditions of the study may have influenced performance over interest factors. (EA)

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Relationship between performance and interest in Adult Education

The literature available concerning curriculum development for adult education programs stress the need for relevance, readability and interest as critical factors with instructional material. The term interest has been studied under various definitions but such reports have not provided consistent data linking higher interest in material with superior performance. Most studies dealing with the notion of interest have used elementary or secondary subjects and have failed to provide a control of the level of material difficulty or the reading achievement of the subjects.

The present study focused on the possible relationships between performance and expressed interest in individual passages, and expressed interest by categories of passages. One-hundred and eighty adult education students from three instructional centers in New York State were administered passages on one of three levels of difficulty. Following each passage, the students answer questions in a multiple choice format which evaluated the subjects recognition of stated details from the passage. After reading all of the selections the students rated each selection as either one of the most interesting,

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one of moderate interest, or one of the least interesting. The results of this forced choice procedure were correlated with the students performance on the twenty-five questions for each level of material difficulty. The data on expressed interest for passages was re-analyzed with using the five categories of the material used in this study: history, people, environment, body function, and animal life. The performance data were then correlated with the results of the interest factor by categories.

An analysis of the data indicated negative correlations between passage interest and performance at the easy (-.48) and difficult (-.17) material levels. However, with moderate material, a high positive correlation (.83) was generated. When the data for the high reader group (6.7 to 8.0 grade equivalent) and low reader group (4.8 to 6.2 grade equivalent) were analyzed separately, comparable correlations were produced by both groups with easy (-.34 and -.46) and moderate (.58 and .41) material. The high group achieved a negative correlation (-.21) between performance and interest with the difficult materials while the low group achieved a positive correlation (.35).

Since consistent results were not produced analyzing material by levels of difficulty, a further review of the data by categories was completed. Positive correlations were indicated between performance and interest by categories for all subjects (.60) as well as the high reader group (.60) and low reader group (.68). When all subjects ranked passages on an interest factor, the results described the categories used in this study from most interesting to least interesting as follows: people, functions of the body, animal life, history and

environment. The performance of all subjects resulted in a similar ranking of categories but with animal life and environment reversing positions in this ranking by performance.

The results tend to indicate that the readability levels, as determined by the formulas used in this study, may not feature all the factors which influence the comprehensibility of material for adults. The moderate material which was closest to the listed reading achievement levels of these readers produced the highest performance scores. It also appears that low reader groups may be more sensitive to interest by category of material than high reader groups. The factors of motivation and self-image may be operating more strongly for low readers since they may tend to react negatively with material without intrinsic appeal. Further work is needed since the test conditions of this study may have influenced performance over an interest factor. The operation of motivation, material relevancy and the material interest may be more critical factors with instruction or when a choice of material is offered than under test conditions which operated in this study.

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RELATIONSHIP BETWEEN PERFORMANCE AND INTEREST IN ADULT EDUCATION

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A number of studies and articles have explored the relationship between comprehension performance and the curriculum factors of interest, motivation and relevance. Although some writers fail to define these factors and others use the terms interchangeably, the notion that performance is linked to the intrinsic appeal of the material has been maintained. Clifford (1973) described this assumption as "interest-brews-success". Several authors have highlighted the continuing need to identify interest factors and have stressed that this information should be used in the development of tests and curriculum (Kirchner, 1966; Neff, 1972; Waples and Tyler, 1931).

The term interest has been defined in several ways (Robinson and Weintraub, 1973). In this study, interest was viewed as an expressed positive attitude toward the content of verbal material. Such a view of interest acknowledges the critical importance of the teacher's responsibility to create a climate for generating student interest and motivation (Berg, 1959). Smith (1970) stated that since adult learners seek immediate rewards and usefulness for any facts, concepts or skills, the factor of interest appeal should be of critical importance. However, the research evidence on the importance of the interest factor is inconclusive. Problems of definition and methodology have hampered studies in this area (Robinson and Weintraub, 1973). The present study focused on two basic questions:

1. Does a relationship exist between comprehension performance and an interest factor by level of passage difficulty?
2. Does a relationship exist between comprehension performance and an interest factor by passage categories?

Procedures

For this study a sample was drawn from students enrolled in Adult Education Programs in Albany, Schenectady and Niagara Falls, New York. The California Achievement Test in Reading (Tiegs and Clark, 1970), vocabulary subtest scores were used to establish a pool of potential subjects scoring between 4.8 to 8.0. After further screening to eliminate individuals with debilitating visual, auditory or emotional problems, a sample of 180 subjects was randomly selected from the pool. On the basis of their scores (4.8 to 6.2 grade equivalent) half of

these students were designated as the low reader group and the remaining students were identified as the high reader group (6.7 to 8.0 grade equivalent).

The stimulus material employed in the study was based on passages from the New Practice Readers, Books C,E,G (Stone et. al., 1962) which have been designated by the authors as appropriate for students at the fourth, sixth and eighth reader levels. The authors of these passages used the Dale-Chall Formula for Predicting Readability to estimate reading levels. The Fry Readability Index (Fry, 1968) was also applied as a second determiner of the stated levels of difficulty.

A total of twenty-five passages were identified for the three levels of difficulty: 10 passages at the fourth grade level; 8 passages at the sixth grade level; and 7 passages at the eighth grade level.

A set of questions was developed for each selected passage to evaluate the subject's ability to recognize a restatement of details. A total of twenty-five questions represented the material on the three levels of difficulty. A pilot study examined the factor of passage dependency and student reaction to this instrument. Also, students selected a title which they felt best represented the contents of the passage. Since the twenty-five passages were grouped in five general categories, the students ranked the categories according to their appeal from most interesting to least interesting as follows: people, body functions, animal life, history and environment.

Based on two levels of reading achievement (high, low) and three levels of material difficulty (4th grade = easy, 6th grade = moderate,

8th grade = difficult), the subjects were randomly assigned to one of six treatment groups. The material was presented visually, with the questions on a page separate from the passage. The students were asked not to refer to the passage when working on the questions.

Following the reading of the selections the students ranked passages according to interest factor in a forced choice procedure. They identified the three "most interesting" and the three "least interesting" passages. In scoring, three points were allotted for identification of a passage as most interesting, one point for least interesting and two points for passages not identified based on a moderate or neutral interest factor. The average interest ranking represented one dependent variable in this study. The average percent of correct answers per selection or category of selections was used as the second dependent factor.

Results

The performance scores for subjects (Table 1) indicated that both the high and low reading achievement groups were most successful with the moderate level material. The easy level material resulted in the lowest performance scores when all subjects were grouped together.

Tables 1 & 2 about here

Table 2 depicts the composite scores for all passages at the three levels of difficulty and the interest ranking for each passage. The rank order correlations resulted in a strong positive relationship at the moderate level but negative relationships at both the easy and

difficult levels. When the two reading achievement groups were analyzed separately, both groups produced moderate negative relationships with the easy material and moderate positive relationships with moderate material. With the difficult material, the low group produced a positive relationship while the high group produced a negative relationship.

Table 3 about here

Table 3 depicts the results of grouping the passages into categories, rather than levels of difficulty. The consistency of the data across achievement groups would tend to indicate that some particular categories have more appeal than others although all the material was selected on a criteria of potential interest. In this analysis, both reader groups produced strong positive correlations. The data also indicated that the appeal of certain content is more strongly related to performance with the low group. The interest ranking corresponded to the ranking obtained in the pilot study. The performance for both the high and low groups reversed the ranked positions of the categories animal life and environment.

Discussion

The relationship between comprehension performance and an interest factor, as defined in this study, appeared more consistently with passage categories than with passages by level of difficulty. The influence of an interest factor on performance appeared most clearly with material closest to the reported reading achievement level of the subjects, emphasizing the importance of comprehensibility.

The performance of subjects with the different levels of material indicated that the readability leveling, as determined by the formulas used in this study, may not feature all the factors influencing comprehensibility of material for adults. The moderate material which was closest to the listed reading achievement levels of the readers produced the highest performance scores. The high reader group's low performance with easy material appears to be a reaction to the artificial language pattern resulting from lower readability superimposed on adult subject matter.

The conditions which operated during this study limit the possible generalizations. The test-like atmosphere during the experimentation may have had the effect of strengthening performance across the interest factor. Further experimentation is needed in the area of interest when either a non-testing condition or free selection of material is provided.

TABLE I

Means: Cell and Marginal

Material	Achievement		Marginal Totals	
	Low	High		
Easy	13.00	16.86	14.93	
Moderate	13.06	18.46	15.76	15.25
Difficult	12.66	17.46	15.06	

TABLE 2

Rank Order Correlation between Performance and Interest on Individual Passages

	Levels of Material					
	Easy		Moderate		Difficult	
Passage Numbers	Percent Correct (A)	Interest Ranking (B)	Percent Correct (A)	Interest Ranking (B)	Percent Correct (A)	Interest Ranking (B)
1	58.50	1.95	64.00	2.50	60.25	1.93
2	65.50	1.58	75.00	2.23	56.90	2.11
3	53.50	2.20	74.00	1.73	47.90	2.16
4	66.00	1.76	50.00	1.78	55.55	2.05
5	35.50	2.30	60.25	2.06	61.00	2.18
6	64.50	2.00	42.00	1.78	47.00	2.10
7	62.50	2.00	55.50	2.00	49.50	1.43
8	63.00	2.05	46.25	1.83		
9	64.00	1.96				
10	71.00	2.13				
Rank Order Correlations[a]						
Total Group		-.48		.83		-.17
High Group		-.34		.58		-.21
Low Group		-.46		.41		.35

[a]Correlations based on Spearman's formula

TABLE 3

Spearman's Rank Order Correlation between Performance and Interest on Passage Categories

Passage Category	Full Group		High Group		Low Group	
	Percent Correct	Interest Ranking	Percent Correct	Interest Ranking	Percent Correct	Interest Ranking
Environment	57.20 (3)	1.82 (5)	64.88 (3)	1.83 (5)	49.53 (3)	1.81 (4.5)
Animal Life	50.17 (5)	1.97 (3)	58.24 (5)	1.93 (3)	42.34 (5)	2.01 (3)
Functions of Body	60.27 (2)	2.02 (2)	68.33 (2)	1.98 (2)	52.22 (2)	2.05 (2)
History	55.68 (4)	1.87 (4)	61.89 (4)	1.94 (4)	49.47 (4)	1.81 (4.5)
People	65.34 (1)	2.17 (1)	71.92 (1)	2.12 (1)	58.76 (1)	2.21 (1)
	rho .60		rho .60		rho .68	

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